

From the  
INTERNATIONAL SEARCHING AUTHORITY

PATENT COOPERATION TREATY  
IBM  
FRANCE INTELLECTUAL PROPERTY DEPT

PCT

To:

- 4 MARS 2005

see form PCT/ISA/220

ACTION

WRITTEN OPINION OF THE  
INTERNATIONAL SEARCHING AUTHORITY  
(PCT Rule 43bis.1)

Date of mailing  
(day/month/year) see form PCT/ISA/210 (second sheet)

Applicant's or agent's file reference  
see form PCT/ISA/220

**FOR FURTHER ACTION**  
See paragraph 2 below

International application No.  
PCT/EP2004/052907

International filing date (day/month/year)  
10.11.2004

Priority date (day/month/year)  
27.11.2003

International Patent Classification (IPC) or both national classification and IPC  
H04L29/06, H04L12/58

Applicant  
INTERNATIONAL BUSINESS MACHINES CORPORATION

1. This opinion contains indications relating to the following items:

- ☒ Box No. I Basis of the opinion
- ☒ Box No. II Priority
- ☐ Box No. III Non-establishment of opinion with regard to novelty, inventive step and industrial applicability
- ☐ Box No. IV Lack of unity of invention
- ☒ Box No. V Reasoned statement under Rule 43bis.1(a)(i) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement
- ☐ Box No. VI Certain documents cited
- ☐ Box No. VII Certain defects in the international application
- ☐ Box No. VIII Certain observations on the international application

2. **FURTHER ACTION**

If a demand for international preliminary examination is made, this opinion will usually be considered to be a written opinion of the International Preliminary Examining Authority ("IPEA"). However, this does not apply where the applicant chooses an Authority other than this one to be the IPEA and the chosen IPEA has notified the International Bureau under Rule 66.1bis(b) that written opinions of this International Searching Authority will not be so considered.

If this opinion is, as provided above, considered to be a written opinion of the IPEA, the applicant is invited to submit to the IPEA a written reply together, where appropriate, with amendments, before the expiration of three months from the date of mailing of Form PCT/ISA/220 or before the expiration of 22 months from the priority date, whichever expires later.

For further options, see Form PCT/ISA/220.

3. For further details, see notes to Form PCT/ISA/220.

Name and mailing address of the ISA:



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**Box No. I Basis of the opinion**

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1. With regard to the **language**, this opinion has been established on the basis of the international application in the language in which it was filed, unless otherwise indicated under this item.  
☐ This opinion has been established on the basis of a translation from the original language into the following language , which is the language of a translation furnished for the purposes of international search (under Rules 12.3 and 23.1(b)).
2. With regard to any **nucleotide and/or amino acid sequence** disclosed in the international application and necessary to the claimed invention, this opinion has been established on the basis of:
  - a. type of material:  
☐ a sequence listing  
☐ table(s) related to the sequence listing
  - b. format of material:  
☐ in written format  
☐ in computer readable form
  - c. time of filing/furnishing:  
☐ contained in the international application as filed.  
☐ filed together with the international application in computer readable form.  
☐ furnished subsequently to this Authority for the purposes of search.
3. ☐ In addition, in the case that more than one version or copy of a sequence listing and/or table relating thereto has been filed or furnished, the required statements that the information in the subsequent or additional copies is identical to that in the application as filed or does not go beyond the application as filed, as appropriate, were furnished.
4. Additional comments:

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**Box No. II Priority**

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1. ☒ The following document has not been furnished:

- ☒ copy of the earlier application whose priority has been claimed (Rule 43*bis*.1 and 66.7(a)).
- ☐ translation of the earlier application whose priority has been claimed (Rule 43*bis*.1 and 66.7(b)).

Consequently it has not been possible to consider the validity of the priority claim. This opinion has nevertheless been established on the assumption that the relevant date is the claimed priority date.

2. ☐ This opinion has been established as if no priority had been claimed due to the fact that the priority claim has been found invalid (Rules 43*bis*.1 and 64.1). Thus for the purposes of this opinion, the international filing date indicated above is considered to be the relevant date.
3. ☐ It has not been possible to consider the validity of the priority claim because a copy of the priority document was not available to the ISA at the time that the search was conducted (Rule 17.1). This opinion has nevertheless been established on the assumption that the relevant date is the claimed priority date.
4. Additional observations, if necessary:

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**Box No. V Reasoned statement under Rule 43*bis*.1(a)(i) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement**

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1. Statement

Novelty (N)	Yes: Claims	
	No: Claims	1-7
Inventive step (IS)	Yes: Claims	
	No: Claims	1-7
Industrial applicability (IA)	Yes: Claims	1-7
	No: Claims	

2. Citations and explanations

**see separate sheet**

**Re Item V**

**Reasoned statement with regard to novelty, inventive step or industrial applicability;  
citations and explanations supporting such statement**

Reference is made to the following documents:

- D1: US 2003/101339 A1 (BIANCHINI PAOLO ET AL) 29 May 2003 (2003-05-29)  
D2: US 2003/167314 A1 (GILBERT MARTYN ET AL) 4 September 2003 (2003-09-04)  
D3: US 2002/112008 A1 (CHRISTENSON NIKOLAI PAUL ET AL) 15 August 2002 (2002-08-15)

**1. Independent claims 1 and 4.**

Document D1 (see in particular the passages cited in the search report), which is considered to represent the most relevant state of the art, discloses, according to all features of claim 1, a system for enhancing the security of the e-mails transmitted from a sender to a receiver over a data transmission network such as Internet wherein a message transfer agent (fig. 2a, 140c) associated with said sender is in charge of transmitting over said network an original e-mail sent by said sender (par. 0015); said system characterized in that said message transfer agent associated with said sender includes a message splitting means adapted to divide said original e-mail into a plurality of chunks (fig. 2a, 220, 230) according to a predetermined algorithm (par. 0022-0024) and a predetermined list of relay message transfer agents (fig. 1, 110i; par. 0035-0038) to which are forwarded said plurality of chunks; and in that it comprises a chunk assembly agent (fig. 2b, 140b) for receiving from said relay message transfer agents the plurality of chunks and re-assembling them by using said predetermined algorithm in order to re-build said e-mail before sending it to said receiver (par. 0016-0017, 0022-0024, 0035-0038, 0041-0043).

All the features described in claim 1 are thus known from document D1.

The subject-matter of claim 1 is therefore not new (Article 33 (2) PCT).

Furthermore, even the applicant could argue that the system of claim 1 is new, based on

minor differences between the features of claim 1 and those disclosed in D1, the subject-matter of claim 1 would not involve an inventive step, Article 33 (3) PCT, having regard to the disclosure of document D1 especially as this document discloses the same object (increasing the transmission security of digital messages in the Internet network) and the same type of solution (splitting the message into a plurality of chunks according to a predetermined algorithm and a predetermined list of relay agents) as the present application.

The same reasoning applies, *mutatis mutandis*, to the subject-matter of the corresponding independent method claim 4, which therefore is also considered not new and not inventive (Articles 33 (2) and (3) PCT).

## **2. Dependent claims 2, 3 and 5-7.**

Dependent claims 2, 3 and 5-7 do not contain any features which, in combination with the features of any claim to which they refer, meet the requirements of the PCT in respect of novelty and inventive step, see document D1 and the corresponding passages cited in the search report.

Same outcome, i. e. claims 1-7 do not meet the requirements of the PCT in respect of novelty and inventive step (Articles 33 (2) and (3)), is to be expected when D2 (see the corresponding passages cited in the search report) is considered as most relevant prior art instead of D1.